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RAW SEQUENCE LISTING

DATE: 08/30/2001

PATENT APPLICATION: US/09/762,594

TIME: 07:24:29

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ENTERED

3 <110> APPLICANT: PAPADOPOULOS, VASSILIOS
 4 HAU, LI
 6 <120> TITLE OF INVENTION: PERIPHERAL-TYPE BENZODIAZEPINE RECEPTOR ASSOCIATED
 7 PROTEINS, CLONING, EXPRESSION AND METHODS OF USE
 9 <130> FILE REFERENCE: 082137-0277848
 11 <140> CURRENT APPLICATION NUMBER: 09/762,594
 12 <141> CURRENT FILING DATE: 2001-02-09
 14 <150> PRIOR APPLICATION NUMBER: PCT/US99/18507
 15 <151> PRIOR FILING DATE: 1999-08-11
 17 <150> PRIOR APPLICATION NUMBER: 60/096,048
 18 <151> PRIOR FILING DATE: 1998-08-11
 20 <160> NUMBER OF SEQ ID NOS: 11
 22 <170> SOFTWARE: PatentIn Ver. 2.1
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 505
 26 <212> TYPE: DNA
 27 <213> ORGANISM: Mus musculus
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 31 aattgctaata aaggcctctg tagccatggc tacttctgac gtgaaaccaa aatcaataag 120
 32 tcgtgccaaag aaatggtcag aggaaataga aaatctgtac agatttcaac aagcaggata 180
 33 tcgggatgaa attgaatata aacaagtga acaagttgcc atggtcgacc gatggccaga 240
 34 gacagggtac gtgaagaaac ttcagcggag ggacaatact ttcttctact acaacaaaga 300
 35 gaggaggatgc gaggacaagg aggtccacaa agtgaagggt tacgtctact gaccttttcc 360
 36 tttcttcggc ttggcaatgc tcctttaaga attggttggt tacattcttc catcgtgtaa 420
 37 atgtcatttt acaaaacaat tcacaattct gtctttaatt catggtgtct tacacaacat 480
 38 aaacacccac cttgaaaccc aaaa 505
 41 <210> SEQ ID NO: 2
 42 <211> LENGTH: 1459
 43 <212> TYPE: DNA
 44 <213> ORGANISM: Mus musculus
 46 <400> SEQUENCE: 2
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 48 agttttatatt ttaaataaac ttctattgtg caaactagta aaagatggca aagcctttca 120
 49 tccaacttat gaagaaaaac tgaagttcgt ggcactgcat aagcaagttc ttttgggccc 180
 50 atataaccca gacacgtccc ctgaggttgg attctttgat gtgttgggga atgataggag 240
 51 gagagaatgg gcagctctgg gaaacatgtc caaggaggat gccatggtag agtttgtgaa 300
 52 gcttctaaat aagtgttgtc ctctcctctc ggcatatgtt gcgtcccaca gaatagagaa 360
 53 ggaagaagaa gagaaaagaa gaaaggcgga ggaggagcga aggcagcgtg aagaggaaga 420
 54 acgagagcgg ctgcaaaagg aagaagagaa gcggaagcga gaggaggaag accggctgag 480
 55 acgggaggag gaagagaggc ggcgataga ggaagagagg cttcggctgg aacagcaaaa 540
 56 gcagcagata atggcagctt taaactcgca gactgccgtg caattccagc agtatgcagc 600
 57 ccagcagtat ccagggaact acgaacaaca gcagattctc atccgccagc tgcaggagca 660
 58 gcactatcag cagtataaac accaggcaga gcaaacccaa cctgcacaac aacaggcagc 720
 59 attacagaaa cagcaagaag tagtgatggc tggggcatca ttgcctgcat catcaaaggt 780
 60 gaacacagct ggagcaagt atacactgtc agttaatgga caggccaaaa cccacactga 840
 61 aaattccgaa aaagtccttg agccagaagc tgcagaagaa gccttggaat atggaccaa 900

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62 agactctctt ccagtgattg cagctccatc catgtggaca agaccacaaa tcaaagactt 960
63 taaagagaag attcggcagg atgcagattc tgtgattaca gtacgtcgag gagaagtcgt 1020
64 caccgtccga gtcccgactc atgaggaagg atcatacctt ttttggaat ttgccacaga 1080
65 cagttatgac attgggtttg ggggtttatt tgaatggaca gactctccaa atgctgctgt 1140
66 cagtgtgcat gtcagtgaat ccagtgcaga ggaggaggag gaggaagaaa atgtcacttg 1200
67 tgaagaaaaa gcaaaaaaga acgccaacaa gcctctgctg gatgagattg tacctgtgta 1260
68 ccggcgggac tgtcacgagg aagtatatgc aggcagccac cagtatccag ggaggggagt 1320
69 ctatctcttc aagtttgata attcctactc tctgtggagg tccaagtccg tctactacag 1380
70 agtctattat actagataga gctgctgttc caagggtccg agtccagggt tgagcacaac 1440
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74 <210> SEQ ID NO: 3

75 <211> LENGTH: 568

76 <212> TYPE: DNA

77 <213> ORGANISM: Mus musculus

79 <400> SEQUENCE: 3

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82 cagtcaaacc tgggggagca gacgcagagc ggacccagg gaggaagggt tcagcgtcgg 180
83 gagaggcata accgaatgga acgagatagg aggcgcagaa tccgcatttg ctgtgatgag 240
84 ctgaatcttt tagttccatt ctgcaatgag gagacagata aagcaacaac ccttcagtgg 300
85 accacagcat tctgaagta cattcaggaa agacatgggg actctcttaa aaaggaattt 360
86 gagagcgtgt tttgcggtta aactggcaga aggctaaagc tgactagacc cgaatccctg 420
87 gtgacctgcc ctgcacaggg cagcctgcag agcagccctg ccatggagat caagtgactg 480
88 gactgaccca ggacctggga gagaaccgcc gttcctgcgg catcatgcac atgcctgcca 540
89 tccccggaat tcagctctga atcctctc                                     568

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93 <211> LENGTH: 490

94 <212> TYPE: DNA

95 <213> ORGANISM: Mus musculus

97 <400> SEQUENCE: 4

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99 caatctcttg agaccagtga tttatgaact tgacatttgg tgcttgggtt gggctttgga 120
100 aagcagaggc cacccttgtc tgtagaggat actgagcggc tggatggcag gaatccaaag 180
101 agaagccagc ctctcgtagt cgccctggga cagtgggaag gagggaggac cggcaaaggg 240
102 gaatctgtct ttctcctagg cccgagcatg tcccctgtgg gacatgctct gtgacagctg 300
103 agcctgcccc gcctgccttt ctgaagtgtg gtgtctcctg ccacacaacca agccagcaat 360
104 cgggtctgtt tccgacaacc tcagagccag acctcacaag cctatttttg tggttcccaa 420
105 aatttctctc agatctccat gtctatccct ccactccctc caaaagagaa agaaaagaat 480
106 tgagaaagaa                                     490

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109 <210> SEQ ID NO: 5

110 <211> LENGTH: 588

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112 <213> ORGANISM: Mus musculus

114 <400> SEQUENCE: 5

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115 gaattcgagg ccggtcgac ctgagaagag gaaaagaggt gcagaagtgc tggcggcaca 60
116 aattgtacag aaaaccagac tagagagaaa aaaacaagaa gcgtctgtat ctaaagatgc 120
117 tccagtgcct acaaatacta aaagggcaaa gaaacaagag aagtctccag gtagaattgc 180
118 ctacacagtct aagccaccca tgaaaaagtc tccacaaaaa cggaaggtaa atgtagcaag 240
119 aggcgcgtcg aataccagaa agcagctcca acctgccgaa aaagaaattg ctttacatct 300

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120 tcaatcagaa atttcatcag atggccaaaa agatggactt aacctaaagta catctcaaca 360
121 agaaagtatt tcaatgattc ctaaagggtcc tcctgaaaac tcagttatca gctgtgactc 420
122 ccaggcccta aatatgttag ctgatctggc attaagttct gctgctgctt ctataccatc 480
123 ttgtaagccc aggaaccttc cctgcgtctc tgatttgcca cgaaacaatg tcttactcac 540
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127 <210> SEQ ID NO: 6

128 <211> LENGTH: 88

129 <212> TYPE: PRT

130 <213> ORGANISM: Mus musculus

132 <400> SEQUENCE: 6

133 Met Ala Thr Ser Asp Val Lys Pro Lys Ser Ile Ser Arg Ala Lys Lys

134 1 5 10 15

136 Trp Ser Glu Glu Ile Glu Asn Leu Tyr Arg Phe Gln Gln Ala Gly Tyr

137 20 25 30

139 Arg Asp Glu Ile Glu Tyr Lys Gln Val Lys Gln Val Ala Met Val Asp

140 35 40 45

142 Arg Trp Pro Glu Thr Gly Tyr Val Lys Lys Leu Gln Arg Arg Asp Asn

143 50 55 60

145 Thr Phe Phe Tyr Tyr Asn Lys Glu Arg Glu Cys Glu Asp Lys Glu Val

146 65 70 75 80

148 His Lys Val Lys Val Tyr Val Tyr

149 85

152 <210> SEQ ID NO: 7

153 <211> LENGTH: 463

154 <212> TYPE: PRT

155 <213> ORGANISM: Mus musculus

157 <400> SEQUENCE: 7

158 Arg Pro Arg Arg Pro Lys Val Glu Leu Phe Thr Val Val Thr Arg Val

159 1 5 10 15

161 Lys Val Val Leu Phe Leu Asn Gln Leu Ser Leu Cys Lys Leu Val Lys

162 20 25 30

164 Asp Gly Lys Ala Phe His Pro Thr Tyr Glu Glu Lys Leu Lys Phe Val

165 35 40 45

167 Ala Leu His Lys Gln Val Leu Leu Gly Pro Tyr Asn Pro Asp Thr Ser

168 50 55 60

170 Pro Glu Val Gly Phe Phe Asp Val Leu Gly Asn Asp Arg Arg Arg Glu

171 65 70 75 80

173 Trp Ala Ala Leu Gly Asn Met Ser Lys Glu Asp Ala Met Val Glu Phe

174 85 90 95

176 Val Lys Leu Leu Asn Lys Cys Cys Pro Leu Leu Ser Ala Tyr Val Ala

177 100 105 110

179 Ser His Arg Ile Glu Lys Glu Glu Glu Glu Lys Arg Arg Lys Ala Glu

180 115 120 125

182 Glu Glu Arg Arg Gln Arg Glu Glu Glu Glu Arg Glu Arg Leu Gln Lys

183 130 135 140

185 Glu Glu Glu Lys Arg Lys Arg Glu Glu Glu Asp Arg Leu Arg Arg Glu

186 145 150 155 160

188 Glu Glu Glu Arg Arg Arg Ile Glu Glu Glu Arg Leu Arg Leu Glu Gln

189 165 170 175

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191 Gln Lys Gln Gln Ile Met Ala Ala Leu Asn Ser Gln Thr Ala Val Gln
192          180          185          190
194 Phe Gln Gln Tyr Ala Ala Gln Gln Tyr Pro Gly Asn Tyr Glu Gln Gln
195          195          200          205
197 Gln Ile Leu Ile Arg Gln Leu Gln Glu Gln His Tyr Gln Gln Tyr Lys
198          210          215          220
200 His Gln Ala Glu Gln Thr Gln Pro Ala Gln Gln Gln Ala Ala Leu Gln
201 225          230          235          240
203 Lys Gln Gln Glu Val Val Met Ala Gly Ala Ser Leu Pro Ala Ser Ser
204          245          250          255
206 Lys Val Asn Thr Ala Gly Ala Ser Asp Thr Leu Ser Val Asn Gly Gln
207          260          265          270
209 Ala Lys Thr His Thr Glu Asn Ser Glu Lys Val Leu Glu Pro Glu Ala
210          275          280          285
212 Ala Glu Glu Ala Leu Glu Asn Gly Pro Lys Asp Ser Leu Pro Val Ile
213          290          295          300
215 Ala Ala Pro Ser Met Trp Thr Arg Pro Gln Ile Lys Asp Phe Lys Glu
216 305          310          315          320
218 Lys Ile Arg Gln Asp Ala Asp Ser Val Ile Thr Val Arg Arg Gly Glu
219          325          330          335
221 Val Val Thr Val Arg Val Pro Thr His Glu Glu Gly Ser Tyr Leu Phe
222          340          345          350
224 Trp Glu Phe Ala Thr Asp Ser Tyr Asp Ile Gly Phe Gly Val Tyr Phe
225          355          360          365
227 Glu Trp Thr Asp Ser Pro Asn Ala Ala Val Ser Val His Val Ser Glu
228          370          375          380
230 Ser Ser Asp Glu Glu Glu Glu Glu Glu Asn Val Thr Cys Glu Glu
231 385          390          395          400
233 Lys Ala Lys Lys Asn Ala Asn Lys Pro Leu Leu Asp Glu Ile Val Pro
234          405          410          415
236 Val Tyr Arg Arg Asp Cys His Glu Glu Val Tyr Ala Gly Ser His Gln
237          420          425          430
239 Tyr Pro Gly Arg Gly Val Tyr Leu Lys Phe Asp Asn Ser Tyr Ser
240          435          440          445
242 Leu Trp Arg Ser Lys Ser Val Tyr Tyr Arg Val Tyr Tyr Thr Arg
243          450          455          460
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247 <211> LENGTH: 158
248 <212> TYPE: PRT
249 <213> ORGANISM: Mus musculus
251 <400> SEQUENCE: 8
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253   1          5          10          15
255 Leu Gly Glu Ile Gln Asn Val Gly Glu Gly Ser Ser Thr Ser Gln Gly
256          20          25          30
258 Thr Trp Gln Ser Ser Glu Ser Ser Gln Ser Asn Leu Gly Glu Gln Thr
259          35          40          45
261 Gln Ser Gly Pro Gln Gly Gly Arg Cys Gln Arg Arg Glu Arg His Asn
262          50          55          60

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264 Arg Met Glu Arg Asp Arg Arg Arg Arg Ile Arg Ile Cys Cys Asp Glu
265 65 70 75 80
267 Leu Asn Leu Leu Val Pro Phe Cys Asn Ala Glu Thr Asp Lys Ala Thr
268 85 90 95
270 Thr Leu Gln Trp Thr Thr Ala Phe Leu Lys Tyr Ile Gln Glu Arg His
271 100 105 110
273 Gly Asp Ser Leu Lys Lys Glu Phe Glu Ser Val Phe Cys Gly Lys Thr
274 115 120 125
276 Gly Arg Arg Leu Lys Leu Thr Arg Pro Glu Ser Leu Val Thr Cys Pro
277 130 135 140
279 Ala Gln Gly Ser Leu Gln Ser Ser Pro Ala Met Glu Ile Lys
280 145 150 155
283 <210> SEQ ID NO: 9
284 <211> LENGTH: 112
285 <212> TYPE: PRT
286 <213> ORGANISM: Mus musculus
288 <400> SEQUENCE: 9
289 Ala Ala Gly Trp Gln Glu Ser Lys Glu Lys Pro Ala Ser Arg Ser Arg
290 1 5 10 15
292 Pro Gly Thr Val Glu Glu Arg Glu Asp Arg Gln Arg Gly Ile Cys Leu
293 20 25 30
295 Ser Pro Arg Pro Glu His Val Pro Cys Gly Thr Cys Ser Val Thr Ala
296 35 40 45
298 Glu Pro Ala Gln Pro Ala Phe Leu Lys Leu Gly Val Ser Cys Pro Gln
299 50 55 60
301 Pro Ser Gln Gln Ser Val Cys Phe Pro Thr Thr Ser Glu Pro Asp Leu
302 65 70 75 80
304 Thr Ser Leu Phe Trp Trp Phe Pro Lys Phe Leu Ser Asp Leu His Val
305 85 90 95
307 Tyr Pro Ser Thr Pro Ser Lys Arg Glu Arg Lys Glu Leu Arg Lys Lys
308 100 105 110
312 <210> SEQ ID NO: 10
313 <211> LENGTH: 196
314 <212> TYPE: PRT
315 <213> ORGANISM: Mus musculus
317 <400> SEQUENCE: 10
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319 1 5 10 15
321 Leu Ala Ala Gln Ile Val Gln Lys Thr Arg Leu Glu Arg Lys Lys Gln
322 20 25 30
324 Glu Ala Ser Val Ser Lys Asp Ala Pro Val Pro Thr Asn Thr Lys Arg
325 35 40 45
327 Ala Lys Lys Gln Glu Lys Ser Pro Gly Arg Ile Ala Ser Gln Ser Lys
328 50 55 60
330 Pro Pro Met Lys Lys Ser Pro Gln Lys Arg Lys Val Asn Val Ala Arg
331 65 70 75 80
333 Gly Arg Arg Asn Thr Arg Lys Gln Leu Gln Pro Ala Glu Lys Glu Ile
334 85 90 95
336 Ala Leu His Leu Gln Ser Glu Ile Ser Ser Asp Gly Gln Lys Asp Gly

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VERIFICATION SUMMARY

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